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EXAMINER

QUAN, ELIZABETH S

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 07/02/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicant(s)

09/813,949

Applicant(s)

MARTINEZ MARTINEZ,  
ESTANISLAO

Examiner

Elizabeth Quan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 April 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 18 April 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Specification*

1. The abstract of the disclosure is objected to because "that" can be omitted in the last line.

Correction is required. See MPEP § 608.01(b).

2. The disclosure is objected to because of the following informalities: In the amendment filed 4/18/2003 that substituted the paragraph of page 1, lines 15-20, ":" should be deleted. It is unknown whether soils can have different land drainage. The sentence on page 2, lines 2 and 3 is a fragment.

Appropriate correction is required.

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: pipe in claim 1 or tube (5) in the specification.

### *Claim Rejections - 35 USC § 112*

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 6 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. A PVC cap is not supported by the original claims or the specification.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

7. Claims 1, 3-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Referring to claim 1, it is unclear how pyrometric describes the capsule. According to Merriam-Webster Collegiate Dictionary, pyrometric is the adjective based on pyrometer, which has a definition of an instrument for measuring temperatures especially when beyond the range of mercurial thermometers. The specification has not given a definition of the "pyrometric," and the definition of "pyrometric" given in the dictionary does not make sense with the disclosed invention, which deals with collecting soil samples for extraction. The capsule of the device does not measure temperatures. Applicant is advised to provide a reference with an intelligible definition of "pyrometric."

9. Referring to claim 1, it appears from the amended drawings that the device (1) is a probe (2) comprising of a rubber cap (6) with holes (7) and (8) through which an adapter tube (9) that is connected to a vacuum pump (not shown) and capillary suction tube (10) are respectively fitted through, pipe which is really tube (5) as designated by the specification, and capsule (3) with a decreased section (4). Applicant is not using consistent language in which "pipe" in the claim 1 and "tube (5)" in the specification. However, confusion would arise from the various tubes--adapter tube (9) and capillary suction tube (10)--if the "pipe" in claim 1 were amended to "tube" according to the specification. It is suggested that "tube (5)" in the specification be replaced with "pipe (5)." Furthermore, the claim recites "a probe of a pyrometric capsule" when

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the capsule is part of the probe. It should be a probe with/comprising a pyrometric capsule-- language that states that the capsule is part of the probe and not vice versa.

10. Claims 3-5 provide for the use of the device for agricultural, environmental, and industrial applications, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 3-5 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

11. Referring to claim 3, the limitation in the third and fourth lines--studying the composition of different chemical compositions--is redundant. Suggestion: composition of different chemicals [compositions].

12. Referring to claim 4, do "polluting effluents" include only nitrates, nitrites, and fitosanitary compounds? What are fitosanitary compounds? The term "remains" in the second to the last line does not make sense: remains of pesticides?

13. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: the pipe. Since the pipe is no longer positively recited

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with “attachable”, the device is missing an essential element, such that there are two pieces, the rubber cap and capsule, and the pipe no longer structurally connects them.

14. Referring to claim 6, the language “a rubber or PVC cap adaptable to a vacuum pump and through which a suction capillary enters that is introduced into the probe interior” is confusing. The cap is adapted for connection to the vacuum pump. Is the suction capillary entering through the cap or pump? What is going on with the suction capillary? It enters that is introduced into the probe interior? “a” should be inserted before “substrate” in line 2.

15. Referring to claim 6, is either one or both solids and/or liquids decanted? Or are specific types of solids and/or liquids decanted?

***Claim Rejections - 35 USC § 103***

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

18. Claims 1 and 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 5,941,121 to Faybishenko in view of (U.S. Patent No. 3,091,115 to Roberts and/or JP

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01172731 to Toriyama and/or U.S. Patent No. 3,871,211 to Tal) and (U.S. Patent No. 4,807,707 to Handley et al. and/or U.S. Patent No. 5,400,858 to Blanchard et al. and/or U.S. Patent No. 5,758,538 to Hubbell et al.)

Referring to claim 1, Faybishenko discloses a device for extraction and sampling of an aqueous solution in a substratum (see ABSTRACT; FIG. 8; SUMMARY OF THE INVENTION; COL. 6, lines 30-34 and 49-59). A probe has a capsule (1) of porous ceramic with an end of lesser diameter than the other end (see FIG. 8; COL. 5, lines 51-67; COL. 6, lines 1-13). A pipe of inert material is attachable to the end of lesser diameter than the capsule (1). According to Merriam-Webster Collegiate Dictionary, inert is defined as deficient in active properties, especially lacking a usual or anticipated chemical or biological action. Since the object of Faybishenko's device is directed to accurate measurements, it is intrinsic that the pipe would be made from an inert material to prevent chemical action, such as that corrosion, degradation, and the like, may distort measurements. A cap with holes seals the pipe (see FIG. 8; COL. 4, lines 44-67; COL. 5, lines 1-34; COL. 11, lines 10-14). The limitation of a rubber cap with drilled holes has been construed as process limitation (see MPEP 2113). Patentability is based on the product and does not depend on its method of production. If the product in the claim is the same or obvious over a product of the prior art, the claim is unpatentable even though the prior art product was made by a different process. In this case Faybishenko disclose holes in the cap, and it does not matter how they were made. An adapter tube (3b), which is connectable to a vacuum pump, is fitted into one of the holes (see FIG. 8; COL. 4, lines

44-67; COL. 5, lines 1-34; COL. 11, lines 10-14). A suction capillary (3A) or (3C) is fitted into the other holes and placeable inside the probe (see FIG. 8).

Faybishenko does not address what type of material the cap is made of. However, it is very well known to provide a cap made of rubber, which has the properties of resistance and flexibility to generate the friction for effective sealing engagement.

Roberts, Toriyama, and Tal each disclose a cap made of rubber to effectively engage with the pipe for a seal that preserves the vacuum, which is needed to perform soil sampling and extraction. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Faybishenko to make the cap from rubber as disclosed in Roberts and/or Toriyama and/or Tal for an effective seal that would preserve the vacuum required to perform soil sampling and extraction.

Faybishenko does not address what is used to create the suction. However, it is very well known to provide a vacuum pump as the suction device in order to automate the supply of vacuum. Hubbell et al., Blanchard et al., and Handley et al. each provide a vacuum pump connected to the tube fitted through the cap to automatically and consistently apply a vacuum to induce liquid flow up the tube in different sampling runs. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Faybishenko to use a vacuum pump to create suction as in Hubbell et al. and/or Blanchard et al. and/or Handley et al. to automatically and consistently apply a vacuum to induce liquid flow up the tube in different sampling runs.



Faybishenko disclose that the capsule is made from ceramic. Faybishenko does not explicitly disclose the capsule is made from porcelain. According to Merriam-Webster Collegiate Dictionary, porcelain is defined as a hard, fine-grained, sonorous, nonporous, and usually translucent and white ceramic ware that consists essentially of kaolin, quartz, and feldspar and is fired at high temperatures, and ceramic is defined as of or relating to the manufacture of any product (as earthenware, porcelain, or brick) made essentially from a nonmetallic mineral (as clay) by firing at a high temperature. Therefore, porcelain is made from ceramic, and ceramic may be porcelain. Applicant has not pointed out that what a capsule is made of is a patentable limitation. Since porcelain and ceramics are related materials in that ceramics is the genus and porcelain is a species of ceramics, they are recognized equivalents in materials. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use specifically porcelain within the broad group of ceramics in the capsule disclosed by Faybishenko because of their being recognized functional equivalents in the art.

Referring to claims 3-5, the device of Faybishenko in view of (Roberts and/or Toriyama and/or Tal) and (Handley et al. and/or Blanchard et al. and/or Hubbell et al.) may be used for agricultural, environmental, or industrial applications.

19. Claims 1 and 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,091,115 to Roberts in view of (U.S. Patent No. 4,807,707 to Handley et al. and/or U.S. Patent No. 5,400,858 to Blanchard et al. and/or U.S. Patent No. 5,758,538 to Hubbell et al.)

Referring to claim 1, Roberts discloses a device for extraction and sampling of an aqueous solution in a substratum (see ABSTRACT; FIG. 6). A probe (60) has a capsule

(62,63) of porous ceramic with an end of lesser diameter than the other end (see FIG. 6; COL. 8, lines 23-28). A pipe (64,66) of transparent plastic, which is an inert material, is attachable to the end of lesser diameter than the capsule (62,63) (see COL. 8, lines 17-45). According to Merriam-Webster Collegiate Dictionary, inert is defined as deficient in active properties, especially lacking a usual or anticipated chemical or biological action. Since the object of Roberts' device is directed to accurate measurements, it is intrinsic that the pipe would be made from an inert material to prevent chemical action, such as that corrosion, degradation, and the like, may distort measurements. A rubber cap with holes seals the pipe (see FIG. 8; COL. 8, lines 35-41). The limitation of a rubber cap with drilled holes has been construed as process limitation (see MPEP 2113).

Patentability is based on the product and does not depend on its method of production. If the product in the claim is the same or obvious over a product of the prior art, the claim is unpatentable even though the prior art product was made by a different process. In this case Roberts disclose holes in the cap, and it does not matter how they were made. An adapter tube (71), which is connectable to a vacuum pump, is fitted into one of the holes (see FIG. 6; COL. 9, lines 3-29). A suction capillary (81) is fitted into the other holes and placeable inside the probe (60) (see FIG. 6; COL. 9, lines 3-29).

Roberts does not address what is used to create the degassing effect. However, it is very well known to provide a vacuum pump as the suction device in order to automate the supply of vacuum. Hubbell et al., Blanchard et al., and Handley et al. each provide a vacuum pump connected to the tube fitted through the cap to automatically and consistently apply a vacuum to induce liquid flow up the tube in different sampling runs.

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Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Roberts to use a vacuum pump to create suction as in Hubbell et al. and/or Blanchard et al. and/or Handley et al. to automatically and consistently apply a vacuum to induce liquid flow up the tube in different sampling runs.

Roberts discloses that the capsule is made from ceramic. Roberts does not explicitly disclose the capsule is made from porcelain. According to Merriam-Webster Collegiate Dictionary, porcelain is defined as a hard, fine-grained, sonorous, nonporous, and usually translucent and white ceramic ware that consists essentially of kaolin, quartz, and feldspar and is fired at high temperatures, and ceramic is defined as of or relating to the manufacture of any product (as earthenware, porcelain, or brick) made essentially from a nonmetallic mineral (as clay) by firing at a high temperature. Therefore, porcelain is made from ceramic, and ceramic may be porcelain. Applicant has not pointed out that what a capsule is made of is a patentable limitation. Since porcelain and ceramics are related materials in that ceramics is the genus and porcelain is a species of ceramics, they are recognized equivalents in materials. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use specifically porcelain within the broad group of ceramics in the capsule disclosed by Roberts because of their being recognized functional equivalents in the art.

Referring to claims 3-5, the device of Roberts in view of (Handley et al. and/or Blanchard et al. and/or Hubbell et al.) may be used for agricultural, environmental, or industrial applications.

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20. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,091,115 to Roberts in view of (U.S. Patent No. 4,807,707 to Handley et al. and/or U.S. Patent No. 5,400,858 to Blanchard et al. and/or U.S. Patent No. 5,758,538 to Hubbell et al.) and (U.S. Patent No. 4,692,287 to Timmons and/or U.S. Patent No. 3,318,140 to Shields et al.

Referring to claim 1, Roberts discloses a device for extraction and sampling of an aqueous solution in a substratum (see ABSTRACT; FIG. 6). A probe (60) has a capsule (62,63) of porous ceramic with an end of lesser diameter than the other end (see FIG. 6; COL. 8, lines 23-28). A pipe (64,66) of transparent plastic, which is an inert material, is attachable to the end of lesser diameter than the capsule (62,63) (see COL. 8, lines 17-45). According to Merriam-Webster Collegiate Dictionary, inert is defined as deficient in active properties, especially lacking a usual or anticipated chemical or biological action. Since the object of Roberts' device is directed to accurate measurements, it is intrinsic that the pipe would be made from an inert material to prevent chemical action, such as that corrosion, degradation, and the like, may distort measurements. A rubber cap with holes seals the pipe (see FIG. 8; COL. 8, lines 35-41). The limitation of a rubber cap with drilled holes has been construed as process limitation (see MPEP 2113).

Patentability is based on the product and does not depend on its method of production. If the product in the claim is the same or obvious over a product of the prior art, the claim is unpatentable even though the prior art product was made by a different process. In this case Roberts disclose holes in the cap, and it does not matter how they were made. An adapter tube (71), which is connectable to a vacuum pump, is fitted into one of the holes

(see FIG. 6; COL. 9, lines 3-29). A suction capillary (81) is fitted into the other holes and placeable inside the probe (60) (see FIG. 6; COL. 9, lines 3-29).

Roberts does not address what is used to create the degassing effect. However, it is very well known to provide a vacuum pump as the suction device in order to automate the supply of vacuum. Hubbell et al., Blanchard et al., and Handley et al. each provide a vacuum pump connected to the tube fitted through the cap to automatically and consistently apply a vacuum to induce liquid flow up the tube in different sampling runs. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Roberts to use a vacuum pump to create suction as in Hubbell et al. and/or Blanchard et al. and/or Handley et al. to automatically and consistently apply a vacuum to induce liquid flow up the tube in different sampling runs.

Roberts discloses that the capsule is made from ceramic. Roberts does not explicitly disclose the capsule is made from porcelain. According to Merriam-Webster Collegiate Dictionary, porcelain is defined as a hard, fine-grained, sonorous, nonporous, and usually translucent and white ceramic ware that consists essentially of kaolin, quartz, and feldspar and is fired at high temperatures, and ceramic is defined as of or relating to the manufacture of any product (as earthenware, porcelain, or brick) made essentially from a nonmetallic mineral (as clay) by firing at a high temperature. Therefore, porcelain is made from ceramic, and ceramic may be porcelain. Applicant has not pointed out that what a capsule is made of is a patentable limitation. Since porcelain and ceramics are related materials in that ceramics is the genus and porcelain is a species of ceramics, they

are recognized equivalents in materials. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use specifically porcelain within the broad group of ceramics in the capsule disclosed by Roberts because of their being recognized functional equivalents in the art.

Roberts disclose accessory items, such as sealing member (73) and valve (97); however, these elements are not necessary to the function of the instrument. The instrument may be vented through tubes (71,81) instead of valve (97). Sealing member (73) is not necessary to guide and align the tubes (71,81) with the device, as rubber cap (68) is sufficient for the purpose. Furthermore, it has been held that omission of an element and its function in a combination where the remaining elements perform the same function as before involves only routine skill in the art (*In re Karlson*, 136 USPQ 184). FIG. 6 has other reference characters pointing to tubes (71,81), such that those elements (78,33A,91,92) are part of tube (71) and elements (88,93,92,91) are part of tube (81). Valve member (97) and associated elements (95,100,99,98) may be considered a part of the pipe. The pipe is in several pieces (60,61,64), and it would be obvious to make the several pieces integral for a single pipe since it has been held that forming in one piece an article that has formerly been formed in two pieces involves only routine skill in the art (*Howard v. Detroit Stove Works*, 150 U.S. 164 (1893)). Timmons and Shields et al. each disclose a probe only with a capsule, pipe, and cap with an adapter tube and suction capillary through the holes of the caps (see FIG. 3). Timmons and Shields each demonstrate that having only the claimed parts performs the claimed purpose of sampling and extraction. Therefore, it would have been obvious to one having

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ordinary skill in the art at the time the invention was made to modify the device of Roberts to provide only claimed elements as in Timmons and/or Shields to provide a device that would have the same function without the unnecessary ancillary equipment to complicate the operation of the device and costs due to unnecessary equipment.

***Response to Arguments***

21. Applicant's arguments with respect to claim 1 and 3-6 have been considered but are moot in view of the new ground(s) of rejection.

22. Applicant maintains that the quibble about "pyrometric" is not well taken, as that term is perfectly appropriate in terms of how and for what purpose the probe is used to take or extract samples. A pyrometer is defined as an instrument that takes temperatures in Merriam-Webster Collegiate Dictionary, and the device of the immediate application does not deal with taking temperatures. Applicant is advised to provide a reference that provides an intelligible and applicable definition of "pyrometric."

***Conclusion***

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. They include one or more limitations in the claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Quan whose telephone number is (703) 305-1947. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (703) 308-4037. The fax phone numbers for the


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organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Elizabeth Quan  
Examiner  
Art Unit 1743

eq  
June 25, 2003

  
Jill Warden  
Supervisory Patent Examiner  
Technology Center 1700